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## WOMAN AND CHILD WORKERS IN COTTON MILLS.

BY WALTER B. PALMER.

An act of Congress, approved January 29, 1907, provided: "That the Secretary of Commerce and Labor be, and he is hereby, authorized and directed to investigate and report on the industrial, social, moral, educational, and physical condition of woman and child workers in the United States wherever employed, with special reference to their age, hours of labor, term of employment, health, illiteracy, sanitary and other conditions surrounding their occupation, and the means employed for the protection of their health, person, and morals." For this purpose a special appropriation of \$150,000 was made in 1907 and an equal amount in 1908.

The investigation was conducted by the Commissioner of Labor, Dr. Charles P. Neill. His report is to appear in nineteen volumes, of which four, relating to cotton textiles, silk textiles, glass making and clothing making, have already been published. The first volume, which relates to cotton manufacturing, was published in December, 1910, as Senate Document No. 645, Sixty-first Congress, second Session. It is a book of 1,044 pages.

The investigation of the employment of women and children in cotton mills was carried on in four of the New England and in six Southern States. The field work by agents of the Bureau of Labor was begun in the South late in the fall of 1907 and was continued there until the spring of 1908. In New England, it was conducted during the spring and early summer of 1908. The number of cotton mills investigated was one hundred ninety-eight, and their locations were as follows: Maine 7, New Hampshire 7, Massachusetts 22, Rhode Island 10, Virginia 4, North Carolina 59, South Carolina 36, Georgia 31, Alabama 13, Mississippi 9. In 1908, these ten states had 23,992,113 cotton spindles, or 85.8 per cent. of the 27,964,387 spindles in the United States.\*

Mills which had 20.7 per cent. of the spindleage in the four

\* Census Bulletin No. 97, pp. 10, 11.

New England States visited and 25.4 per cent. of the spindleage in the six Southern States visited were investigated. Some of these mills were located in cities, some in towns, and some in the country districts. In selecting mills for investigation, the aim was to select in each state those that would be representative of the industry, including some of the larger and some of the smaller mills, some that showed the best conditions, some that showed the worst, and some in which average conditions prevailed.

All of the 198 mills investigated were personally inspected by agents of the Bureau. No mill was reported unless its officers permitted the agent to have full access to all departments of the mill and to examine its pay roll. Information which agents obtained from their frequent inspections of the workrooms was supplemented by further information obtained from both employers and employees.

The following abstract of some of the more important features of the report is presented under the headings mentioned below:

- I.—Proportion of woman and child operatives.
- II.—Age and sex of operatives.
- III.—Illegal employment of children in New England mills.
- IV.—Illegal employment of children in Southern mills.
- V.—Hours mills operated and hours operatives worked.
- VI.—Earnings of operatives.
- VII.—Working conditions of operatives.
- VIII.—Races of operatives by sex and age.
- IX.—Conjugal condition of operatives.
- X.—School attendance and illiteracy.
- XI.—Reasons assigned for employing children.

#### I. PROPORTION OF WOMAN AND CHILD OPERATIVES.

Cotton manufacturing is by far the most important of the manufacturing industries of the country in which women and children are employed. About one eighth of all the women and about one fourth of all the children engaged in all kinds of manufacturing are employed in the cotton textiles industry. In 1905, nearly 60,000 more women were employed in this industry than in any other, and more children were em-

ployed in this industry than in any other four industries combined.\*

While the growth of cotton manufacturing in the United States has been marked by a large increase in the number of women and children employed, there has been a very much larger increase in the proportion of men employed, with a corresponding decrease in the proportion of women and children employed, but more particularly the women. This is shown by the following table:

PER CENT. OF MALES AND OF FEMALES 16 YEARS OF AGE AND OVER AND OF CHILDREN UNDER 16 EMPLOYED IN THE COTTON INDUSTRY, BY GEOGRAPHICAL DIVISIONS, 1880-1905.

[From Census Bulletin No. 74, p. 39; also from Special Reports of Census Office, Manufactures, 1905, Part III, p. 29.]

Divisions.	Per cent. of males 16 years and over.				Per cent. of females 16 years and over.				Per cent. of children under 16 years.			
	1880.	1890.	1900.	1905.	1880. (a)	1890. (a)	1900.	1905.	1880. (b)	1890. (b)	1900.	1905.
New Eng- land States	36.2	43.3	48.2	49.0	49.7	49.8	45.1	45.0	14.1	6.9	6.7	6.0
Middle States	31.7	36.4	41.5	43.6	46.9	51.0	46.1	47.7	21.4	12.6	12.4	8.7
Southern States	28.4	34.4	41.6	45.5	46.5	41.4	33.4	31.6	25.1	24.2	25.0	22.9
Western States	26.3	30.4	34.4	29.6	52.0	56.4	56.6	58.8	21.7	13.2	9.0	11.6
Totals	34.6	40.6	45.1	46.9	49.0	48.7	41.5	40.2	16.4	10.7	13.4	12.9

(a) In 1880 and 1890 females 15 years and over.

(b) In 1880 and 1890 males under 16 years and females under 15 years.

That the tendency to employ a larger proportion of men and a smaller proportion of women and children continues was indicated by the investigation conducted by the Bureau of Labor. In the forty-six New England mills investigated, the women were 43.3 per cent., the children 5.2, and the men 51.5. In the one hundred fifty-two Southern mills investigated, the women were 27 per cent., the children 20, and the men 53.

## II. AGE AND SEX OF OPERATIVES.

The following table shows, by state and sections, the number of employees of the mills investigated:

\* Special Reports of Census Office, Manufactures, 1905, Part 1, pp. lxxv and lxxx.

NUMBER OF ESTABLISHMENTS INVESTIGATED AND NUMBER AND PER CENT. OF EMPLOYEES OF EACH SEX AND EACH AGE GROUP, BY STATES.

State.	Es- tab- lish- ments inves- tigat- ed.	Number of employees.						Per cent. of total employ- ees.					
		16 years and over.		Under 16 years.			Total.	16 years and over.		Under 16 years.			
		M.	F.	M.	F.	Total.		M.	F.	M.	F.	Total.	
NEW ENGLAND GROUP.													
Maine.....	7	2,582	2,855	244	253	497	5,934	43.5	48.1	4.1	4.3	8.4	
New Hampshire.....	7	1,213	961	43	68	111	2,285	53.1	42.0	1.9	3.0	4.9	
Massachusetts.....	22	9,623	7,773	285	320	605	18,001	53.4	43.2	1.6	1.8	3.4	
Rhode Island.....	10	3,611	2,701	249	249	498	6,810	53.0	39.6	3.7	3.7	7.4	
Total.....	46	17,029	14,290	821	890	1,711	33,030	51.5	43.3	2.5	2.7	5.2	
SOUTHERN GROUP.													
Virginia.....	4	1,891	918	264	219	483	3,292	57.4	27.9	8.0	6.7	14.7	
North Carolina.....	59	5,889	3,175	1,223	1,124	2,347	11,411	51.6	27.8	10.7	9.9	20.6	
South Carolina.....	36	7,778	3,341	1,803	1,499	3,302	14,421	53.9	23.2	12.5	10.4	22.9	
Georgia.....	31	6,248	3,277	927	900	1,827	11,352	55.0	28.9	8.2	7.9	16.1	
Alabama.....	13	2,844	1,558	573	594	1,167	5,569	51.1	28.0	10.3	10.6	20.9	
Mississippi.....	9	933	788	290	249	539	2,260	41.3	34.9	12.8	11.0	23.8	
Total.....	152	25,583	13,057	5,080	4,585	9,665	48,305	53.0	27.0	10.5	9.5	20.0	
Grand total.....	198	42,612	27,347	5,901	5,475	11,376	81,335	52.4	33.6	7.3	6.7	14.0	

Except in Maine and Mississippi, the male operatives sixteen years of age and over outnumbered all other employees combined. In Mississippi there was, at the time of the investigation, no child-labor law. It was found that ordinarily, mills which manufactured yarn only employed a higher proportion of children than those which manufactured both yarn and cloth, that small mills employed a higher proportion of children than large mills, and that mills located in small or medium-sized towns employed a higher proportion of children than mills located in the larger cities.

The much higher percentage of children employed in Southern mills was due in part to the fact that in all States of that section, the employment of children of twelve and thirteen was legal and customary, while in New England, employment could not legally begin before the age of fourteen, except that in New Hampshire, children twelve years of age and over

might legally be employed when the schools were not in session. Another cause was the better enforcement of the child-labor laws in New England than in the South. Of the six Southern States, Mississippi had the highest proportion of children under sixteen years of age, 23.8 per cent. of all employees in mills investigated, while Virginia had the lowest, or 14.7 per cent. Of the four New England States, Maine had the highest proportion of children, 8.4 per cent., while Massachusetts had the lowest, 3.4 per cent.

In all the mills investigated the age, conjugal condition, nativity, and race of each employee were ascertained. In the case of the smaller mills, where the facts were known by the mill officials, such data were obtained from them. In the case of the large mills, the facts were obtained from the employees, either in the mill or at their homes, by personal inquiry on the part of the agents of the Bureau. In securing such information, the overseers of different departments frequently assisted. In the case of a number of the larger mills, printed slips asking for the desired information were distributed among the employees and were collected after being filled.

Great care was taken to verify the ages of children under sixteen, as reported by the children themselves or by the mill officials, especially in the cases of the younger children. This was done by interrogating the children, their parents, or other members of the family, and frequently teachers of the schools which the children had attended. In New England the ages of many children were verified by the records of births kept by public officials, but this could be done only for children who were born where the mills in which they worked were located, and then only when the mills were located where public records of births were kept. In the South, verification could not be made by consulting public records of birth except in certain large cities where births are recorded, but wherever possible verification was made by consulting the family Bibles of families whose homes were visited.

So far as means of verification could be found, the ages of the younger children were verified. Both the ages as reported by the employers, and the ages as otherwise ascertained were reported. But the agents of the Bureau did not de-

pend on their own judgment of the ages of children. In no case has an estimate of the age according to the appearance of the child been used; and unless proof was obtained which showed that the age furnished by the child or by the mill official was inaccurate, that statement of age was always accepted. The result is, beyond question, that many young children under fourteen years of age, and some of fourteen and fifteen were reported as one, two, or three years older than the true age, and the number of children under the legal age who were actually employed was certainly considerably in excess of the figures given in this report. In the case of some operatives sixteen years of age and over, they were entered as being "sixteen and over" or "twenty-one and over" because the mill officials were not able to state the age more definitely.

Five mills in New England and seven mills in the South refused to admit agents of the Bureau to their work rooms, and three other Southern mills refused to permit agents to copy the names on their pay rolls, so none of these mills were investigated. The difficulties of ascertaining the extent to which the age limit laws were violated were increased by attempts on the part of certain manufacturers in the South to conceal actual conditions. In ten mills which were investigated—three in North Carolina, six in South Carolina, and one in Georgia—positive proof was obtained that small children were discharged temporarily, sent home for a few hours or a few days, or hidden in entries, in water closets, or in waste boxes, anywhere so that they would not be discovered by the agent when going through the mill. In other cases, where no elaborate attempt at deception was made, manufacturers misstated the ages of children either through ignorance or a desire to deceive. Not all of these misstatements could be disproved. The full extent of the violation of the age limit laws is therefore not shown in the report.

### III. ILLEGAL EMPLOYMENT OF CHILDREN IN NEW ENGLAND MILLS.

At the time of the investigation, the laws of each of the four New England States visited forbade the employment of

children under fourteen years of age in factories, except as mentioned in New Hampshire, and except as to the canning industry in Maine. These laws have not been changed as regards the age limit. In each of the four States there was a factory inspection system.

The extent to which the laws fixing a minimum working age for children were found to be violated in New England mills is shown in the following table:

NUMBER OF CHILDREN EMPLOYED IN COTTON MILLS INVESTIGATED IN THE NEW ENGLAND GROUP, BY STATES, AND NUMBER AND PER CENT. EMPLOYED UNDER THE LEGAL AGE (14 YEARS).

State.	Total mills investigated.					Mills employing children under 14 years.				
	Num- ber.	Children employed—				Num- ber.	Children employed—			
		Under 16 years.	Under 14 years.				Under 16 years.	Under 14 years.		
			Le- gally.	Ille- gally.	Per cent. illegally employed.			Le- gally.	Ille- gally.	Per cent. illegally employed.
Maine.....	7	497	.....	64	12.9	7	497	.....	64	12.9
New Hampshire..	7	111	5	5	4.5	a3	67	5	5	4.5
Massachusetts....	22	605	.....	1	.2	1	17	.....	1	5.9
Rhode Island.....	10	498	.....	50	10.0	5	338	.....	50	14.8
Total.....	46	1,711	5	120	7.0	15	919	5	120	13.1

a. In New Hampshire 2 mills employed children illegally, and 1 legally employed 5 children under 14 years of age while school was in session.

In Maine every mill investigated had children under the legal age at work. Out of the 497 children under sixteen years of age employed in the mills inspected in that State, 64, or 12.9 per cent., were found to be under the legal age. In Rhode Island, one half of the mills investigated were found to be employing children under the legal age; and of the 498 children under sixteen of years age employed in the mills inspected, 50, or 10 per cent., were found to be under the legal age. A few children were found employed under the legal age in New Hampshire, and a few others under fourteen years who were legally employed under the provision of the law of that State which permits employment of children over twelve years of age during vacation. In Massachusetts only one child under the legal age was found at work.



The number of children at each age under fourteen years found in the forty-six mills investigated in New England is briefly summarized in the following table:

NUMBER OF CHILDREN OF EACH AGE UNDER THE LEGAL AGE (14 YEARS) EMPLOYED IN COTTON MILLS INVESTIGATED IN THE NEW ENGLAND GROUP, BY STATES.

Age.	Maine.	New Hampshire.	Massachusetts.	Rhode Island.	Total.
10 years.....	2				2
11 years.....	10	2		2	14
12 years.....	11			7	18
13 years.....	41	a8	1	41	a91
Total.....	64	a10	1	50	a125

a. Including 5 children employed when school was not in session, and so legally employed.

A detailed table in the report shows that one mill in New Hampshire employed fourteen children under fifteen years of age, of whom four, or 28.6 per cent., were employed illegally; and that one mill in Rhode Island employed 114 children under sixteen years of age, of whom 33, or 28.9 per cent., were employed illegally.

Of the 120 children under fourteen years of age who were illegally at work in the New England mills investigated, the names of 97 appeared on the pay rolls, and the names of 23 were omitted therefrom. The practice of employing children without entering their names on the pay rolls is an evasion of the law, and is explained in the next section of this abstract.

In New England, there were violations not only of the age limit laws, but of the laws which require age certificates or age and school certificates to be kept on file by the employer for all children fourteen and fifteen years of age. In Massachusetts and New Hampshire employees under sixteen must be able to read and write in English, but in Maine and Rhode Island, there is no educational requirement. The extent to which the requirement in regard to certificates being kept on file was found to be violated is shown in the following table:

NUMBER AND PER CENT. OF NEW ENGLAND COTTON MILLS INVESTIGATED VIOLATING THE EMPLOYMENT CERTIFICATE LAW. AND NUMBER AND PER CENT. OF CHILDREN 14 AND 15 YEARS OLD AT WORK WITHOUT CERTIFICATES, BY STATES.

State.	Establishments investigated as to observance of the cer- tificate laws.			Children 14 and 15 years of age at work in establish- ments so investigated.		
	Total.	Violating the laws.		Total.	Without certi- ficates.	
		Number.	Per cent.		Number.	Per cent.
Maine.....	6	6	100.0	293	137	46.8
New Hampshire.....	5	3	60.0	80	9	11.3
Massachusetts.....	19	3	15.8	510	18	3.5
Rhode Island.....	9	9	100.0	400	2188	47.0
Total.....	39	21	53.8	1,283	2352	27.4

a. Including 9 with certificates issued on sworn statement.

This table shows that in the mills visited the law was well observed in Massachusetts, and fairly well observed in New Hampshire. In both Maine and Rhode Island, the law was flagrantly violated. None of the establishments investigated on this point in these two states had certificates for all children as required, and in three mills in each State more than half of the children fourteen and fifteen years old were without the certificates required by law.

IV. ILLEGAL EMPLOYMENT OF CHILDREN IN SOUTHERN MILLS.

As already mentioned, Mississippi had no child-labor law at the time of the investigation, while the laws of the other five Southern States visited prohibited the employment in factories, of children under twelve years of age, except in canning factories in North Carolina. The laws of two States, South Carolina and Georgia, excepted orphans and children of widows or of aged or disabled fathers from the provisions of the laws if they were dependent upon their own labor for their support. The laws of Georgia permitted the employment of such children if ten years of age and the laws of South Carolina permitted their employment at any age. Since the investigation was made the age limit has been raised to fourteen in Virginia; in North Carolina, it has been raised to thirteen years, with the employment of apprentices permitted at

the age of twelve, and Mississippi has enacted a law which forbids the employment of children under twelve years of age.

At the time of this investigation, although five of the six Southern States visited had child-labor laws, in only two was any provision made for enforcement of those laws or for factory inspection. Virginia has had factory inspection since 1906. A law which provided that the inspector of jails and almshouses should also act as inspector of factories went into effect in Alabama shortly before the State was visited in this investigation. The inspector, however, had not begun work at the time the mills in the State were investigated. Two other States, South Carolina and Mississippi, have made provision for factory inspection since the field work was completed.

The extent to which the laws fixing a minimum working age for children were found to be violated in Southern mills is shown in the following table, which includes Mississippi, where there was no child-labor law:

NUMBER OF CHILDREN EMPLOYED IN COTTON MILLS INVESTIGATED IN THE SOUTHERN GROUP, BY STATES, AND NUMBER AND PER CENT. EMPLOYED UNDER THE LEGAL AGE (12 YEARS).

State.	Total mills investigated.					Mills employing children under 12 years.				
	Number.	Children employed—				Number.	Children employed—			
		Under 16 years.	Under 12 years.				Under 16 years.	Under 12 years.		
			Le-gally.	Ille-gally.	Per cent. illegally employed.			Le-gally.	Ille-gally.	Per cent. illegally employed.
Virginia .....	4	483		9	1.9	2	434		9	2.1
North Carolina...	59	2,347		202	8.6	44	1,751		202	11.5
South Carolina...	36	3,302	42	405	12.3	a34	3,185	42	405	12.9
Georgia.....	31	1,827	41	66	3.6	b22	1,366	41	66	5.8
Alabama.....	13	1,167		71	6.1	8	943		71	7.5
Mississippi.....	9	539	113			c9	539	113		
Total.....	152	9,665	196	753	7.9	116	8,218	196	753	9.2

a. In South Carolina 33 mills employed children illegally, and 1 legally employed 1 child under 12 years of age who were under legal exceptions.

b. In Georgia 20 mills employed children illegally, 1 legally employed 1 child under 12 years of age who was under legal exceptions, and 1 legally employed 15 children under 12 years of age, who were under legal exceptions.

c. In Mississippi there was no child-labor law at the time of the investigation.

It appears that although the child-labor laws were found to be flagrantly violated in all Southern States visited having such laws, and particularly in North Carolina and South Caro-

lina, yet these laws have had no little effect in reducing the number of child employees under twelve years of age. The industry in Mississippi is newer than in the other States, and this would account in part for the higher proportion of children. The difference, however, was too great to be entirely accounted for in this way, and was without doubt due to the absence then of law on the subject in that State. At the same time, it should be noted that a few mills in North Carolina and South Carolina had practically as high a proportion of children under twelve as any in Mississippi and that many had a higher proportion than the average for that State.

Of children under sixteen years of age at work, the proportion under twelve years was very much higher in certain mills in each State than the average proportion for the State as shown in the table. It was as high as 41 per cent. in one South Carolina mill, 37 in a Mississippi mill, 35.7 in a North Carolina mill, 27.6 in a Georgia mill, 21.7 in an Alabama mill, and 4.1 in a Virginia mill.

The number of children at each age under twelve found employed in the mills investigated in each Southern State visited is summarized in the following table:

NUMBER OF CHILDREN OF EACH AGE UNDER 12 YEARS ON PAY ROLLS, AND NUMBER NOT ON PAY ROLLS, EMPLOYED IN COTTON MILLS INVESTIGATED IN THE SOUTHERN GROUP, BY STATES.

[Only children admitted or positively proved to be under 12 are included in this table as under that age.]

Age.	Virginia.		North Carolina.		South Carolina.		Georgia.		Alabama.		Mississippi.		Total.								
	On pay roll.	Total.	On pay roll.	Total.	On pay roll.	Total.	On pay roll.	Total.	On pay roll.	Total.	On pay roll.	Total.	On pay roll.	Total.							
7 years.....			1	3	4	7	1	1	1	1	2	2	4	4	13	17					
8 years.....			8	7	15	9	15	24	4	3	6	6	6	26	22	48					
9 years.....			21	6	27	32	20	52	4	2	6	4	17	1	18	77					
10 years.....	1	1	2	37	12	49	110	37	147	19	8	27	20	3	35	222	61	283			
11 years.....	4	3	7	94	13	107	202	15	217	68	5	73	38	2	40	455	39	494			
Total .....	5	4	9	161	41	202	353	94	447	91	16	107	65	6	71	109	4	113	784	165	949

a. Including 1 child 6 years of age.

Of the 753 children illegally at work in the Southern mills investigated, the names of 592 appeared upon the pay rolls, and the names of 161 were omitted therefrom. The wages

of these 161 children were included with those of some other member of the family, and they were what are commonly known as "helpers." Because they are unquestionably under the legal age, however, and are admitted so to be, the employer refuses to place their names upon the books of the company, but does not refuse to give them work, if some other member of the family can be induced to carry the "helper's" wages home.

In other words, the helper system ordinarily is merely a subterfuge whereby a law which prohibits the employment of children under a certain age is evaded. If the name is omitted from the pay roll, the employer argues that he is not "employing" the child. The fact that the child has an assigned task, the work being done by the manufacturer's direction and for his benefit, and the fact that the employer willingly pays for it in a relative's pay envelope, fail to alter this conclusion. Of course, where the law provides that a child under a certain age "shall not be employed or permitted or suffered to work in or about any manufacturing establishment," it can not be evaded in this way, but thus far, such a provision has been kept out of child-labor laws in North Carolina and South Carolina, where the helper system mostly prevails. Provisions of this character are contained, however, in the laws of the other Southern States visited.

In none of the Southern States visited were there any compulsory school laws, except in one or two localities in North Carolina, but in North Carolina, no child under thirteen could be legally employed in a factory (canning factories excepted) unless he had attended school sixteen weeks during the previous year; in Georgia, no child under fourteen could be legally employed in a factory unless he had attended school twelve weeks during the previous year; in Alabama, no child between twelve and sixteen could be legally employed in a factory unless he had attended school eight weeks during the previous year. However, little attention was paid by manufacturers to these requirements.

The laws requiring written proof of age and requiring affidavits to legalize the employment of the children of widows or of aged or disabled fathers were freely violated. In South Carolina and Georgia, it was found that many children em-

ployed under affidavits declaring that their fathers were disabled should not have been permitted to work as their fathers were able bodied. In North Carolina, very little attention was paid to the laws requiring written statements of the ages of children.

#### V. HOURS MILLS OPERATED AND HOURS OPERATIVES WORKED.

At the time of this investigation, the laws of Maine restricted the hours of labor for women and children in factories to sixty per week, and the laws of New Hampshire, Massachusetts, and Rhode Island limited the hours for such employees to fifty-eight. Since that time, the limit has been reduced to fifty-eight in Maine and to fifty-six in Massachusetts and Rhode Island. All mills investigated in New England operated the legal time except one in Maine which operated 61.8 hours a week.

The laws of North Carolina and Georgia restricted the hours of labor for women and children in factories to sixty-six per week, and the laws of Virginia and Alabama limited them to sixty. During the investigation, the legal hours in South Carolina were reduced from sixty-two to sixty. Except a few mills in South Carolina which did not change their working hours promptly, no violations of the law as regards working hours were found outside of Alabama, where of thirteen mills all but three exceeded the legal hours, and one operated as long as sixty-seven hours and fifteen minutes. In Mississippi there was no law on the subject, and the mills investigated operated from sixty hours to sixty-eight hours and fifteen minutes but since the time of the investigation, the hours have been legally fixed at fifty-eight.

The hours actually worked by operatives during a representative week were obtained from the pay rolls of the mills investigated. The following table shows for each of the ten states the average hours operated by the mills and the hours actually worked by the operatives.

AVERAGE REGULAR OPERATING TIME AND AVERAGE HOURS WORKED IN A REPRESENTATIVE WEEK BY MALE AND FEMALE EMPLOYEES IN COTTON MILLS INVESTIGATED, BY STATES.

State.	Average hours regular operating time.	Average hours worked in a representative week.	
		Males.	Females.
NEW ENGLAND GROUP			
Maine.....	60.1	50.9	50.2
New Hampshire.....	58.0	45.0	46.2
Massachusetts.....	58.0	50.8	49.6
Rhode Island .....	58.0	51.3	52.0
Total.....	58.4	50.7	50.1
SOUTHERN GROUP			
Virginia.....	60.0	50.2	50.1
North Carolina.....	63.6	54.7	54.6
South Carolina.....	61.1	48.7	48.6
Georgia.....	64.0	48.9	49.4
Alabama.....	63.9	48.4	48.6
Mississippi.....	62.4	53.7	53.9
Total.....	62.7	50.3	50.6

When the mills of the Northern and Southern groups, taken as a whole, are compared, it will be seen that, while the regular operating time in the New England mills investigated averaged 58.4 hours against 62.7 in the Southern mills, the average hours actually worked in a representative week in the two sections differed but slightly. The males in the New England group averaged 50.7 hours, against 50.3 for the males in the Southern group, while the females in the New England mills averaged 50.1 hours, against 50.6 for the females in the Southern mills.

Of the fifty-nine mills investigated in North Carolina, twenty-eight operated at night and twenty-seven employed at night children under sixteen years of age. The proportion of such children to the all-night employees in these twenty-seven mills varied from 9.1 to 74.5 per cent. Of the thirty-six mills investigated in South Carolina, four operated at night and the proportion of children under sixteen years of age working at night to the all-night employees varied from 16.7 to 42 per cent.

## VI. EARNINGS OF OPERATIVES.

The difference between the wages paid in New England mills and those paid in Southern mills is illustrated by detailed

tables in the report showing the average hourly earnings of operatives of various ages employed in occupations in which women and children were engaged in Massachusetts and North Carolina. The average earnings of such operatives of all ages were .149 per hour for males and .136 for females in Massachusetts, and .097 for males and .087 for females in North Carolina. In Massachusetts, the maximum average earnings of males was .180 per hour, which was reached by them when from forty-five to forty-nine years of age, and of females .154, which was reached by them when from thirty-five to forty-four years. In North Carolina, the maximum average earnings of males was .137 per hour, which was reached by them when from twenty-five to twenty-nine years of age, and of females .106, which was reached by them when from thirty to thirty-four years.

In the following table are given for each section the average actual earnings of operatives in six occupations during a representative week, and their computed earnings on a full-time basis:

AVERAGE ACTUAL AND FULL TIME (COMPUTED) EARNINGS IN A REPRESENTATIVE WEEK OF MALE AND FEMALE EMPLOYEES 16 YEARS OF AGE AND OVER IN THE NEW ENGLAND AND IN THE SOUTHERN MILLS INVESTIGATED.

Occupation.	44 New England mills.				151 Southern mills.			
	Males.		Females.		Males.		Females.	
	Actual earnings per week.	Computed full-time earnings per week.	Actual earnings per week.	Computed full-time earnings per week.	Actual earnings per week.	Computed full-time earnings per week.	Actual earnings per week.	Computed full-time earnings per week.
Doffers.....	\$5.62	\$6.77	\$4.85	\$6.07	\$4.05	\$5.08	\$2.86	\$4.70
Ring spinners.....	5.63	6.77	6.17	7.36	4.41	5.96	4.54	5.71
Scrubbers and sweepers.....	5.32	6.02	4.74	5.66	4.15	5.08	2.96	3.76
Speeder tenders.....	8.44	9.64	7.67	8.88	6.38	8.21	5.64	7.09
Spoolers.....	.....	.....	5.79	6.77	4.85	6.08	4.39	5.71
Weavers.....	8.76	9.93	7.85	8.99	6.76	8.53	5.82	7.21

The following table shows for the New England and the Southern families visited having married women at work the the average size and income of such families, according to condition as to husband:



AVERAGE SIZE AND EARNINGS OF FAMILIES OF MARRIED WOMEN AT WORK, BY  
CONDITION AS TO HUSBAND.

Condition as to husband.	Families.			Annual family income.			Average per capita weekly income excluding earnings of wives.	Families having a per capita weekly income excluding earnings of wives of less than \$2.	
	Number.	Percent. of total.	Average size.	Earnings of wives.	Excluding earnings of wives.	Total.		Number.	Percent.
NEW ENGLAND GROUP									
Widows .....	34	20.9	3.7	\$307	\$476	\$783	\$2.49	14	41.2
Deserted and divorced wives .....	10	6.1	3.9	261	417	678	2.06	3	30.0
Wives of incapacitated husbands...	4	2.5	5.0	303	566	869	2.18	2	50.0
Wives of idle husbands.....	3	1.8	6.0	303	912	1,215	2.92	.....	.....
Wives with husbands at work...	112	68.7	5.1	306	728	1,034	2.73	30	26.8
Total.....	163	100.0	4.8	303	n6	959	2.65	49	30.1
SOUTHERN GROUP.									
Widows.....	66	26.2	4.7	189	434	623	1.78	39	59.1
Deserted and divorced wives .....	33	13.1	4.9	194	366	560	1.42	25	75.8
Wives of incapacitated husbands	7	2.8	5.1	183	442	625	1.65	5	71.4
Wives of idle husbands.....	3	1.2	5.3	189	327	516	1.18	3	100.0
Wives with husbands at work...	143	56.7	5.4	183	581	764	2.08	68	47.6
Total.....	252	100.0	5.1	186	508	694	1.90	140	55.6

In the New England group, the average size of the 163 families visited was 4.8 members. The average annual income per family was \$959, of which \$303, or 31.6 per cent., was contributed by the wives, and \$656, or 68.4 per cent., was from other members of the family or from other sources than wage earnings. The per capita weekly income of these families, excluding earnings of wives, was \$2.65, the average for 49 of them, or 30.1 per cent., being less than \$2. The highest annual average earnings of the women workers in this group were those of widows (\$307), while deserted and divorced wives received the lowest average (\$261).

In the Southern group, the average size of the 252 families visited was 5.1 members and the average annual income per family was \$694, of which the wives contributed \$186, or 26.8 per cent.; and \$508, or 73.2 per cent., was from other members of the family or from other sources than wage earnings. The per capita weekly income, excluding that of wives, was \$1.90. The highest average annual earnings of the women workers in this group were those of deserted and divorced wives (\$194), while wives with husbands at work received the lowest average (\$183). The number of wives of incapacitated hus-

bands and of idle husbands is too small in both sections to be used for comparative purposes.

The following table is compiled from data secured from families in which there were wage-earning children sixteen years of age and over:

AVERAGE INDIVIDUAL EARNINGS OF CHILDREN OF EACH SEX 16 YEARS OF AGE AND OVER AT WORK, AVERAGE CONTRIBUTIONS OF SUCH CHILDREN TO FAMILY INCOME AND PER CENT. OF THEIR EARNINGS SO CONTRIBUTED, BY NATIVITY AND RACE OF HEADS OF FAMILIES.

Nativity and race of head of family.	Number of families with—		Children 16 years and over at work.					
	Male children 16 years and over at work.	Female children 16 years and over at work.	Average earnings of—		Average amount contributed to family by—		Per cent. of earnings contributed to family by—	
			Males.	Females.	Males.	Females.	Males.	Females.
<b>NEW ENGLAND GROUP.</b>								
Native born, native parents.....	14	26	\$412	\$302	\$283	\$282	68.7	93.4
Native born, foreign parents:								
French Canadian.....	9	17	332	304	332	297	100.0	97.7
English.....	3	4	488	389	488	377	100.0	96.9
Irish.....	7	10	343	284	254	246	74.1	86.6
Italian.....								
Polish.....		1						
Portuguese.....	1	1	480	366	480	366	100.0	100.0
Other races.....	3	2	293	276	293	176	100.0	63.8
Total.....	23	34	355	307	318	285	89.6	92.8
<b>Foreign born:</b>								
French Canadian.....	205	305	353	311	284	300	80.5	96.5
English.....	35	57	424	378	365	371	86.1	98.1
Irish.....	45	74	379	344	306	330	80.7	95.9
Italian.....	11	20	365	331	269	326	73.7	98.5
Polish.....	8	15	376	283	376	283	100.0	100.0
Portuguese.....	24	36	330	328	321	323	97.3	98.5
Other races.....	24	35	367	310	315	298	85.8	96.1
Total.....	352	542	362	323	299	313	82.6	96.9
Total, New England group....	389	602	364	321	300	310	82.4	96.6
<b>SOUTHERN GROUP.</b>								
Native born, native parents.....	641	886	267	237	194	211	72.7	89.0

The number of families in which there were wage-earning male children sixteen years of age and over was notably less than the number having wage-earning female children in the same age group.

Although the average earnings of the males in this age group were in each nativity and race group greater than those of the females, yet the average amount contributed to the family out of such earnings by the females exceeds that contributed

by the males in both the New England and the Southern group.

In the Southern group, the females contributed 89 per cent. of their individual earnings to the family and the males contributed 72.7 per cent.

## VII. WORKING CONDITIONS OF OPERATIVES.

The following table shows for each State the number of mills investigated which were found to be provided with fire escapes and the number which had made no such provision. A column is also added to show which of the States have legal requirements as to fire escapes.

NUMBER OF COTTON MILLS INVESTIGATED OF OVER TWO STORIES PROVIDING AND NUMBER NOT PROVIDING FIRE ESCAPES AND LEGAL REQUIREMENTS AS TO FIRE ESCAPES, BY STATES.

State.	Number of establishments investigated.	Estab-lishments of over two stories.	Establishments where fire escapes were—		Fire escapes required by law.
			Provided.	Not provided.	
NEW ENGLAND GROUP.					
Maine.....	7	7	7	.....	When workers are above first story.
New Hampshire .....	7	7	7	.....	No.
Massachusetts.....	22	21	19	2	Required when 10 or more persons work above second story.
Rhode Island.....	10	10	8	2	When buildings are of three or more stories.
SOUTHERN GROUP.					
Virginia.....	4	3	1	2	When buildings are over three stories.
North Carolina.....	59	12	1	11	No.
South Carolina.....	36	21	1	20	No.
Georgia.....	31	16	5	11	No.
Alabama.....	13	6	1	5	No.
Mississippi.....	9	5	.....	5	No.

There is no overcrowding of operatives in cotton mills, but in some mills the machinery is placed too close together, so that the danger from accidents is increased. In 5 of the 46 mills investigated in New England and in 76 of the 152 mills investigated in the South the sanitary condition of the water closets was bad.

The dust and lint found in cotton mills are disagreeable and injurious to health, especially as regards persons who are predisposed to affections of the throat or lungs. In a large majority of the mills which were inspected much dust and lint were seen. Though the number in which there was very

little was comparatively small, it was sufficient to show that it is not only possible, but entirely practicable, to remove nearly all the dust and lint by constant sweeping, scrubbing, and cleaning. This point can not be too strongly emphasized, that there is no necessity for so much dust and lint as are usually found in cotton mills. It is merely a matter of expense in employing enough sweepers and scrubbers, and, where necessary, cleaners or wipers, though the operatives on most machines can keep them wiped off without much loss of time. The additional expense for sweepers and scrubbers, in order to keep a mill clean and its workrooms wholesome, is a comparatively small item, and does not appreciably increase the cost of manufacture.

Women who work in cotton mills are required to stand practically all of the time in all occupations except that of drawing-in, in which few employees are engaged, and all child workers are required to be on their feet practically all of the time except doffers, who in most mills have intervals of rest.

Of the families reported, 14.8 per cent. owned their dwellings in New England, and 4.9 per cent in the South. In the South there are many villages in which all of the land and houses are owned by the mill company. In New England many mill companies have sold the houses which they built for operatives. The average rent paid by New England families living in company houses was \$6.32 per month, and in non-company houses, \$9.26; by Southern families living in company houses, \$3.57, and in non-company houses, \$5.31. The per cent. of family earnings devoted to rent in New England was 6.4 among families living in company houses, and 10.0 among families living in non-company houses. The corresponding per cents. in the South were 4.8 and 7.2.

In New England practically all cotton mills which formerly did welfare work have abandoned it, because the city or some other agency has taken it over. Of the 152 Southern mills, 76 supported or partly supported day schools, 32 supported or partly supported kindergartens, 8 paid salaries to welfare workers, and 10 paid salaries to trained nurses. Some mills engage in other forms of welfare work.

In New England there are practically no stores owned by

cotton mills, but 57 of the 152 mills investigated in the South had stores owned by the mill or the mill officials. These stores usually carried a larger variety of goods than the independent stores, sold at about the same prices, and were protected from loss, because store accounts were deducted from the earnings of employees on every pay day.

### VIII. RACES OF OPERATIVES BY SEX AND AGE.

In the 46 New England mills investigated there were 22,665 employees of both sexes in occupations in which women and children were employed, and the races of 21,915 of them were reported. The following table shows for these 21,915 operatives the number and per cent. of each specified race, by sex and age groups. All native-born persons of native parents are included under American. Under the other races specified are included both foreign-born persons and native-born persons whose fathers were foreign-born.

NUMBER AND PER CENT OF EMPLOYEES OF EACH RACE REPORTED IN COTTON MILLS IN THE NEW ENGLAND GROUP, BY SEX AND AGE.

Race.	16 years and over.				Under 16 years.				Total.	
	Males.		Females.		Males.		Females.			
	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.
American.....	286	4.5	1,134	8.2	76	9.7	73	8.5	1,569	7.2
English.....	604	9.5	1,350	9.7	87	11.2	73	8.5	2,114	9.6
French Canadian.....	2,610	40.9	5,633	40.5	410	52.6	499	58.1	9,152	41.8
Irish.....	334	5.2	2,288	16.5	50	6.4	63	7.3	2,735	12.5
Italian.....	303	4.8	249	1.8	36	4.6	35	4.1	623	2.8
Polish.....	920	14.4	1,759	12.6	26	3.3	38	4.4	2,743	12.5
Portuguese.....	322	5.0	680	4.9	34	4.4	41	4.8	1,077	4.9
Other races.....	1,001	15.7	803	5.8	61	7.8	37	4.3	1,902	8.7
Total.....	6,380	100.0	13,896	100.0	780	100.0	859	100.0	21,915	100.0

French Canadians show the highest percentage of operatives in every group presented in this table, 41.8 per cent. of all the operatives considered being of this race. Next to these were the Polish and the Irish, each with 12.5 per cent., followed in order by the English, American, Portuguese, and Italian.

The following table, which refers to the same individuals

as the preceding table is designed to show for each race the number and per cent. of employees of each sex above and below sixteen years of age, but males sixteen years of age and over in occupations in which women and children are not engaged are omitted from the enumeration:

NUMBER AND PER CENT. OF MALE AND FEMALE EMPLOYEES 16 YEARS OF AGE AND OVER AND OF THOSE UNDER 16 YEARS OF AGE, IN COTTON MILLS IN THE NEW ENGLAND GROUP, BY RACE.

Race.	Employees 16 years and over.				Employees under 16 years.				Total.	
	Males.		Females.		Males.		Females.		Num-ber.	Per cent.
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.		
American.....	286	18.2	1,134	72.3	76	4.8	73	4.7	1,569	100.0
English.....	604	28.6	1,350	63.9	87	4.1	73	3.4	2,114	100.0
French Canadian.....	2,610	28.5	5,632	61.5	410	4.5	499	5.5	9,152	100.0
Irish.....	334	12.2	2,288	83.7	50	1.8	63	2.3	2,735	100.0
Italian.....	303	48.6	249	40.0	36	5.8	35	5.6	623	100.0
Polish.....	920	33.5	1,759	64.1	26	1.0	38	1.4	2,743	100.0
Portuguese.....	322	29.9	680	63.1	34	3.2	41	3.8	1,077	100.0
Other races.....	1,001	52.6	803	42.2	61	3.2	37	2.0	1,902	100.0
Total.....	6,380	29.1	13,896	63.4	780	3.6	859	3.9	21,915	100.0

In the South practically all cotton mill operatives are native born white Americans, except that in some mills negroes are employed to do the heaviest work in the picker and card rooms. Most of the Southern operatives have come from the farms surrounding the mills, but some have come from the mountains of North Carolina and Tennessee.

IX. CONJUGAL CONDITION OF OPERATIVES.

Information was secured to show the sex, age, and conjugal condition of operatives employed in occupations in which women and children were employed. The following table shows the conjugal condition of such employees who were 16 years of age or over. The table shows that in the New England group 42.7 per cent. of the male operatives 16 years of age and over were married, as against 29.6 per cent. of the females of that age. In the Southern group 44.9 per cent. of the males were married, as against 27.9 per cent. of the females.

NUMBER AND PER CENT. OF MALE AND OF FEMALE EMPLOYEES 16 YEARS OF AGE AND OVER OF EACH CONJUGAL CONDITION IN COTTON MILLS INVESTIGATED, BY STATES AND GROUPS OF STATES.

## NUMBER.

State.	Males 16 years of age and over.				Females 16 years of age and over.			
	Single.	Married.	Wid- owed, divorced, separated and deserted.	Total.	Single.	Married.	Wid- owed, divorced, separated, and deserted.	Total.
<b>NEW ENGLAND GROUP.</b>								
Maine.....	562	448	17	1,027	1,835	847	139	2,821
New Hampshire.....	172	163	6	341	545	278	57	880
Massachusetts.....	1,958	1,375	52	3,385	5,004	2,228	303	7,535
Rhode Island.....	868	738	21	1,627	1,777	757	126	2,660
Total.....	3,560	2,724	96	6,380	9,161	4,110	625	13,896
<b>SOUTHERN GROUP.</b>								
Virginia.....	429	401	21	851	485	311	91	887
North Carolina.....	958	773	11	1,742	2,033	634	97	2,764
South Carolina.....	1,643	1,513	11	3,167	2,210	962	179	3,351
Georgia.....	1,175	916	13	2,104	1,943	956	221	3,120
Alabama.....	673	466	12	1,151	1,006	439	114	1,559
Mississippi.....	192	118	6	316	515	168	89	772
Total.....	5,070	4,187	74	9,331	8,192	3,470	791	12,453

## PER CENT.

State.	Males 16 years of age and over.				Females 16 years of age and over.			
	Single.	Married.	Wid- owed, divorced, separated, and deserted.	Total.	Single.	Married.	Wid- owed, divorced, separated, and deserted.	Total.
<b>NEW ENGLAND GROUP.</b>								
Maine.....	54.7	43.6	1.7	100.0	65.1	30.0	4.9	100.0
New Hampshire.....	50.4	47.8	1.8	100.0	61.9	31.6	6.5	100.0
Massachusetts.....	57.9	40.6	1.5	100.0	66.4	29.6	4.0	100.0
Rhode Island.....	53.3	45.4	1.3	100.0	66.8	28.5	4.7	100.0
Total.....	55.8	42.7	1.5	100.0	65.9	29.6	4.5	100.0
<b>SOUTHERN GROUP.</b>								
Virginia.....	50.4	47.1	2.5	100.0	54.7	35.1	10.2	100.0
North Carolina.....	55.0	44.4	.6	100.0	73.6	22.9	3.5	100.0
South Carolina.....	51.9	47.8	.3	100.0	66.0	28.7	5.3	100.0
Georgia.....	55.9	43.5	.6	100.0	62.3	30.6	7.1	100.0
Alabama.....	58.5	40.5	1.0	100.0	64.5	28.2	7.3	100.0
Mississippi.....	60.8	37.3	1.9	100.0	66.7	21.8	11.5	100.0
Total.....	54.3	44.9	.8	100.0	65.8	27.9	6.3	100.0

The following table shows for operatives of each sex 16 years of age and over in the New England group the number and per cent. of each conjugal condition by races:

NUMBER AND PER CENT. OF MALE AND OF FEMALE EMPLOYEES 16 YEARS OF AGE AND OVER OF EACH CONJUGAL CONDITION IN COTTON MILLS INVESTIGATED IN THE NEW ENGLAND GROUP, BY RACE.

Race.	Males 16 years of age and over.				Females 16 years of age and over.			
	Single.	Married.	Widowed, divorced, separated, and deserted.	Total.	Single.	Married.	Widowed, divorced, separated, and deserted.	Total.
American.....	177	103	6	286	781	266	87	1,134
English.....	235	355	14	604	785	502	63	1,350
French Canadian.....	1,367	1,209	34	2,610	3,752	1,674	207	5,633
Irish.....	177	139	18	334	1,552	561	175	2,288
Italian.....	195	107	1	303	165	75	9	249
Polish.....	479	431	10	920	1,138	578	43	1,759
Portuguese.....	218	102	2	322	422	241	17	680
Other races.....	712	278	11	1,001	566	213	24	803
Total.....	3,560	2,724	96	6,380	9,161	4,110	625	13,896

## PER CENT.

American.....	61.9	36.0	2.1	100.0	68.9	23.4	7.7	100.0
English.....	38.9	58.8	2.3	100.0	58.1	37.2	4.7	100.0
French Canadian.....	52.4	46.3	1.3	100.0	66.6	29.7	3.7	100.0
Irish.....	53.0	41.6	5.4	100.0	67.8	24.5	7.7	100.0
Italian.....	64.4	35.3	.3	100.0	66.3	30.1	3.6	100.0
Polish.....	52.1	46.8	1.1	100.0	64.7	32.9	2.4	100.0
Portuguese.....	67.7	31.7	.6	100.0	62.1	35.4	2.5	100.0
Other races.....	71.1	27.8	1.1	100.0	70.5	26.5	3.0	100.0
Total.....	55.8	42.7	1.5	100.0	65.9	29.6	4.5	100.0

This table, relating to employees 16 years of age and over, shows that of the various races in the New England group that having the largest proportion of married men was the English with 58.8 per cent. while of the women of this race 37.2 per cent. were married. For every race shown except the Portuguese the proportion of men who were married was larger than that of women, 31.7 per cent. of the Portuguese males being married as against 35.4 per cent. of the females.

During the investigation careful inquiries were made in the various communities visited among physicians, teachers, and ministers of various denominations concerning the effect of employment in the mills upon the morals of the operatives.



In practically all mills in the country districts and the smaller towns the moral standard was high. Occasionally particular mills in the larger cities were found in which, through lax discipline and indifference on the part of the management, a low moral tone prevailed, but, on the whole, nothing was found to indicate that employment in cotton mills had any different moral effect upon the women and children than employment in any other line of factory work.

### X. SCHOOL ATTENDANCE AND ILLITERACY.

In the following table the children 6 to 15 years of age in the families visited in New England and the South are presented by age groups:

NUMBER AND PER CENT. OF CHILDREN 6 TO 15 YEARS OF AGE IN COTTON-MILL FAMILIES VISITED WHO WERE AT WORK, AT SCHOOL, AND AT HOME, BY AGE GROUPS.

Age group.	New England group.							Southern group.						
	Total number.	At work.		At school.		At home.		Total number.	At work.		At school.		At home.	
		Number.	Per ct.	Number.	Per ct.	Number.	Per ct.		Number.	Per ct.	Number.	Per ct.	Number.	Per ct.
6 to 9 years. . . . . 10 and 11 years. }	845	2	.3	732	86.6	111	13.1	1,181 754	97 379	8.2 50.3	518 266	43.9 35.3	566 109	47.9 14.4
Total, 6 to 11 years. . . . . 12 and 13 years.	845 400	2 48	.3 12.0	732 336	86.6 84.0	111 16	13.1 4.0	1,935 1,084	476 952	24.6 87.8	784 90	40.5 8.3	675 42	34.9 3.9
Total, 6 to 13 years. . . . . 14 and 15 years.	1,245 624	50 523	4.0 83.8	1,068 82	85.8 13.1	127 19	10.2 3.1	3,019 1,072	1,428 1,031	47.3 96.2	874 20	29.0 1.9	717 21	23.7 1.9
Total, 6 to 15 years. . . . .	1,869	573	30.7	1,150	61.5	146	7.8	4,091	2,459	60.1	894	21.9	738	18.0

It is seen that the per cent. of these at work, at school, and at home varied greatly in the two sections, not only for the children as a whole, but in the several age groups. Naturally the per cent. at work increases very greatly in the age group where employment was permitted under the law, namely, at 14 in New England and at 12 in the South.

Information was secured as to school attendance and ability to read and write of the women and children at work in all the cotton mill families visited except a few in North Carolina. The facts are shown in the following table:

## ILLITERACY AND SCHOOL ATTENDANCE OF WOMAN AND CHILD WORKERS IN COTTON-MILL FAMILIES VISITED.

(This table does not include data for women and children in a few families in North Carolina.)

State and age group.	Total number.	Number reporting as to literacy.	Persons unable to read and write.					Persons able to read and write.		
			Number.	Per cent. of those reporting.	Persons who never attended school.	Persons who attended school.		Number.	Per cent. of those reporting.	Average months' school attendance.
						Number.	Average months' attendance.			
<b>Maine:</b>										
Children under 14 yrs.	30	29	4	13.8	.....	4	12.0	25	86.2	43.2
Children 14 and 15 yrs.	125	125	24	19.2	a3	a20	22.2	101	80.8	a50.7
Women 16 years and over.....	213	213	23	10.8	b2	b19	38.3	190	89.2	58.6
<b>New Hampshire:</b>										
Children under 14 yrs.	2	2	.....	.0	.....	.....	.....	2	100.0	(c)
Children 14 and 15 yrs.	48	48	1	2.1	.....	1	36.0	47	97.9	64.4
Women 16 years and over.....	89	89	9	10.1	2	7	24.9	80	89.9	62.1
<b>Massachusetts:</b>										
Children under 14 yrs.	1	1	1	100.0	1	.....	.....	.....	.....	.....
Children 14 and 15 yrs.	242	239	4	1.7	1	3	52.3	235	98.3	d63.0
Women 16 years and over.....	486	486	44	9.1	b24	b18	44.1	442	90.9	e62.4
<b>Rhode Island:</b>										
Children under 14 yrs.	17	17	1	5.9	1	.....	.....	16	94.1	34.6
Children 14 and 15 yrs.	108	108	8	7.4	4	4	19.5	100	92.6	a50.7
Women 16 years and over.....	229	229	24	10.5	20	4	15.8	205	89.5	f50.3
<b>Virginia:</b>										
Children under 14 yrs.	54	54	38	70.4	10	28	10.7	16	29.6	18.9
Children 14 and 15 yrs.	45	45	26	57.8	7	19	7.6	19	42.2	20.8
Women 16 years and over.....	52	52	25	48.1	11	14	9.7	27	51.9	b26.0
<b>North Carolina:</b>										
Children under 14 yrs.	438	327	176	53.8	a70	a105	6.6	151	46.2	d17.3
Children 14 and 15 yrs.	325	254	101	39.8	a33	a67	7.3	153	60.2	g19.5
Women 16 years and over.....	401	304	80	26.3	33	47	6.5	224	73.7	h20.2
<b>South Carolina:</b>										
Children under 14 yrs.	467	463	233	50.3	d109	d121	7.7	230	49.7	i22.3
Children 14 and 15 yrs.	279	276	88	31.9	b44	b42	6.9	188	68.1	i25.0
Women 16 years and over.....	328	326	74	22.7	34	40	8.8	252	77.3	f28.4
<b>Georgia:</b>										
Children under 14 yrs.	206	206	88	42.7	a28	a59	8.9	118	57.3	f19.6
Children 14 and 15 yrs.	209	209	59	28.2	14	45	10.6	150	71.8	f22.2
Women 16 years and over.....	276	276	65	23.6	22	43	10.5	211	76.4	23.9
<b>Alabama:</b>										
Children under 14 yrs.	146	145	95	65.5	42	53	6.5	50	34.2	b17.5
Children 14 and 15 yrs.	114	114	53	46.5	24	29	6.3	61	53.5	b21.0
Women 16 years and over.....	154	154	59	38.3	30	29	8.6	95	61.7	b17.4
<b>Mississippi:</b>										
Children under 14 yrs.	117	116	51	44.0	9	42	6.3	65	56.0	b13.5
Children 14 and 15 yrs.	59	59	13	22.0	6	7	4.7	46	78.0	a20.6
Women 16 years and over.....	77	77	8	10.4	4	4	7.3	69	89.6	27.2

a Not including 1 person, school attendance not reported.

b Not including 2 persons, school attendance not reported.

c Not reported.

d Not including 3 persons, school attendance not reported.

e Not including 22 persons, school attendance not reported.

f Not including 4 persons, school attendance not reported.

g Not including 8 persons, school attendance not reported.

h Not including 9 persons, school attendance not reported.

i Not including 5 persons, school attendance not reported.

Persons claiming to be able to write even a little were not counted as illiterate. Like all other tables in regard to illiteracy, this one may have a considerable element of error, due to untruthful answers to the inquiries. This margin, however, is certainly in the direction of understatement of illiteracy rather than overstatement.

A comparison of the percentage of illiteracy in the three age groups shows in each of the Southern group of States a greater percentage of illiteracy in the lower age groups than in the high ones. The differences, moreover, are pronounced enough to indicate that the children under 14 years of age have not attended schools to as great an extent as have the older mill workers. This is confirmed also by the average months of school attendance both of the illiterates and of those reporting themselves as able to read and write. Among the illiterates in nearly every case the average months of school attendance of the children under 14 at work are less than those of the women 16 years of age and over. Among those reporting themselves able to read and write, the difference as to months of school attendance is quite pronounced in every State save Alabama.

SCHOOL ATTENDANCE AND LITERACY OF CHILDREN UNDER 14 YEARS OF AGE AT WORK, IN COTTON-MILL FAMILIES IN NEW ENGLAND GROUP AND IN EACH STATE IN SOUTHERN GROUP, BY AGES.

Age.	Persons reporting as to school attendance.			Persons reporting as to literacy.					
	Number who never attended school.	Attended school.		Number.	Able to read and write.		Not able to read and write.		
		Number.	Average months.		Number.	Per cent.	Number.	Per cent.	
NEW ENGLAND GROUP:									
10 years.....		1	50.0	1	1	100.0			
11 years.....				1	1	100.0			
12 years.....		7	38.6	7	7	100.0			
13 years.....	2	37	36.8	40	34	85.0	6	15.0	
Total.....	2	45	37.4	49	43	87.8	6	12.2	
Virginia:									
10 years.....		6	9.2	6			6	100.0	
11 years.....	2	3	8.3	5	1	20.0	4	80.0	
12 years.....	3	18	15.4	21	9	42.9	12	57.1	
13 years.....	5	17	14.4	22	6	27.3	16	72.7	
Total.....	10	44	13.7	54	16	29.6	38	70.4	

SCHOOL ATTENDANCE AND LITERACY OF CHILDREN UNDER 14 YEARS OF AGE AT WORK, IN COTTON-MILL FAMILIES IN NEW ENGLAND GROUP AND IN EACH STATE IN SOUTHERN GROUP, BY AGES—CONCLUDED.

Age.	Persons reporting as to school attendance.			Persons reporting as to literacy.				
	Number who never attended school.	Attended school.		Number.	Able to read and write.		Not able to read and write.	
		Number.	Average months.		Number.	Per cent.	Number.	Per cent.
North Carolina:								
7 years.....	1			1			1	100.0
8 years.....	4	3	4.3	8	3	37.5	5	62.5
9 years.....	4	12	9.9	16	4	25.0	12	75.0
10 years.....	5	15	7.0	18	6	33.3	12	66.7
11 years.....	15	33	8.5	49	15	30.6	34	69.4
12 years.....	21	82	12.6	103	54	52.4	49	47.6
13 years.....	23	112	15.6	132	69	52.3	63	47.7
Total.....	73	257	12.8	327	151	46.2	176	53.8
South Carolina:								
7 years.....	1			1			1	100.0
8 years.....	3	5	5.6	8			8	100.0
9 years.....	13	14	5.9	27	2	7.4	25	92.6
10 years.....	15	46	14.4	61	27	44.3	34	55.7
11 years.....	22	68	14.9	93	37	39.8	56	60.2
12 years.....	25	100	20.3	128	78	60.9	50	39.1
13 years.....	30	113	18.2	145	86	59.3	59	40.7
Total.....	109	346	17.0	463	230	49.7	233	50.3
Georgia:								
6 years.....	1			1			1	100.0
9 years.....	1	1	6.0	2	1	50.0	1	50.0
10 years.....	2	5	8.2	7	3	42.9	4	57.1
11 years.....	5	28	14.0	34	21	61.8	13	38.2
12 years.....	6	56	15.8	63	33	52.4	30	47.6
13 years.....	13	83	17.3	99	60	60.6	39	39.4
Total.....	28	173	15.9	206	118	57.3	88	42.7
Alabama:								
7 years.....	1			1			1	100.0
8 years.....	2			2			2	100.0
9 years.....	1	1	14.0	2			2	100.0
10 years.....	7	9	8.0	16	1	6.3	15	93.7
11 years.....	5	14	11.5	21	5	23.8	16	76.2
12 years.....	13	43	11.6	56	24	42.9	32	57.1
13 years.....	13	34	12.9	47	20	42.6	27	57.4
Total.....	42	101	11.7	145	50	34.5	95	65.5
Mississippi:								
7 years.....	1	2	1.5	3			3	100.0
8 years.....		5	3.8	5			5	100.0
9 years.....	2	10	5.7	12	4	33.3	8	66.7
10 years.....	1	11	6.5	12	6	50.0	6	50.0
11 years.....	2	24	9.6	26	14	53.8	12	46.2
12 years.....	2	24	12.3	26	19	73.1	7	26.9
13 years.....	3	30	14.7	32	22	68.8	10	31.2
Total.....	11	106	10.5	116	65	56.0	51	44.0
SOUTHERN GROUP:								
6 years.....	1			1			1	100.0
7 years.....	4	2	1.5	6			6	100.0
8 years.....	9	13	4.6	23	3	13.0	20	87.0
9 years.....	21	38	7.3	59	11	18.6	48	81.4
10 years.....	30	92	10.9	120	43	35.8	77	64.2
11 years.....	51	170	12.4	228	93	40.8	135	59.2
12 years.....	70	323	15.5	397	217	54.7	180	45.3
13 years.....	87	389	16.4	477	263	55.1	214	44.9
Total.....	273	1,027	14.4	1,311	630	48.1	681	51.9

Of the 47 New England children reported as to school attendance, 45 had attended an average of 37.4 months, while 2 had never attended school. Of 1,300 such children in the South, 1,027 had attended an average of 14.4 months, while 273 had never attended school. Of 49 New England children reported as to literacy, 6, or 12.2 per cent., were unable to read and write. Of 1,311 such children in the South, 681, or 51.9 per cent., were unable to read and write.

The report of the United States Commissioner of Education for 1909 shows that the average number of days the public schools were kept open during the year was 194 in Rhode Island, 188 in Massachusetts, 159 in New Hampshire, 136 in Maine, 132 in Georgia, 130 in Virginia, 119 in Mississippi, 113 in Alabama, 98 in North Carolina, and 96 in South Carolina.

#### XI. REASONS ASSIGNED FOR EMPLOYING CHILDREN.

A reason assigned by some manufacturers for the employment of children is their adaptability to certain occupations, particularly ring spinning and doffing. However, leading manufacturers who were interviewed during the investigation, while admitting that child labor was profitable and claiming that on account of the scarcity of labor it was necessary, alleged that it was not so profitable as adult labor. Young children tire out more quickly than older people and are unable to do their best work during the entire day. Their attention is more easily diverted from their work. As spinners, they do not so closely watch their machines to piece together the threads which break. The broken thread winds around the rollers and has to be pulled or cut off, making waste, which must again pass through the picker, cards, and other machines, and in going through them the second time the fibres are broken, and the yarn so made is not so good as yarn which is not partly made of waste. When threads are broken the manufacturer suffers a loss not only on account of an inferior product but on account of a loss of production of the spindles on which the threads break. Spinners, whether young or old, receive the same piece rate per side of a spinning frame, and for reasons stated it is natural that manufacturers would prefer older spinners if enough of them could be obtained.

The assertion frequently made that because of their size young boys are better adapted for doffing than older persons receives no support from the fact that in the mills visited in New England practically no doffers were found below 14, and only 23.6 per cent. of the total number were below 16, or from the fact that in every State visited in both New England and the South doffers over 16 earned higher average wages than doffers below that age. Doffers are usually paid by the day, and the higher average wages of those over 16 indicate that they are more efficient than those who are younger. As to ring spinners, it is significant that 48.2 per cent. of such spinners in the mills visited in the South, and 86.7 per cent. in the mills visited in New England, were over 16 years old.

Another reason assigned by manufacturers for the employment of children, though their labor may not be so profitable as that of older persons, is that while young they can acquire a dexterity and deftness in handling fine threads that cannot be acquired after the fingers become stiff. Nothing was developed by the investigation, however, to show that the operatives in the South are more efficient than those in New England though the age of beginning work is usually lower in the South than in New England.

The chief reason for the employment of children seems to be the short supply of labor. Many Southern manufacturers who were interviewed declared that they could not secure all the labor they needed, and that if workers below 14 were excluded from the mills there would necessarily be much idle machinery. All departments of a mill are dependent on the spinning room, and if the force in that room were reduced, there would necessarily be idle machinery and loss of production. It is further argued that if children below 14 were excluded many families having such children would leave the mills and return to the farms or mountains, and thus the mills would lose the labor not only of such children, but also of many adults in the same families.

During the last 30 years there has been a phenomenal development of cotton manufacturing in the South. In 1880 the number of spindles in Southern mills was 500,000; in 1890, 1,600,000; in 1900, 4,300,000; in 1905, 7,500,000; in

1908, 10,400,000.\* This enormous increase in the industry has caused great demand for labor in the cotton mills. Southern mill owners want foreigners as workers, and in 1906 manufacturers in South Carolina contributed \$30,000 to a fund appropriated by the legislature to pay the expenses of soliciting Belgians and other people in Northern Europe to emigrate to that state, and to pay their passage money to Charleston. The steamer *Wittekind* brought 450 immigrants from Bremen, and they were given employment mostly in cotton mills. They became discontented, however, and some returned to Europe while others went to other States. At the time of the investigation in 1907-8, few of these people were found in the mills of South Carolina or of other Southern States. Owing to more stringent restrictions concerning the bringing over of immigrants imposed by the national immigration law, which became effective July 1, 1907, practically all efforts to induce foreign immigration into the Southern States were then suspended.

Undoubtedly the principal reasons why foreigners who are working in New England cotton mills cannot be induced to go to the South and work in the mills there are that the wages are much lower and working hours much longer in the South. This probably more than offsets the advantage in cost of living which is less in the South than in New England. No relief to the labor situation in Southern mills may, therefore, be expected from the North until the Southern mills adopt a higher scale of wages.

Cotton manufacturers in the South enjoy advantages over those in New England, not only in being permitted by law to employ younger children and to employ them for longer working hours, but also in the matter of paying lower rates of wages. Moreover, there is more water power available in the South, the price of raw cotton there is less, and Southern mill owners have entire freedom from interference by labor unions. Notwithstanding such advantages, the Southern manufacturers have been slow to support child labor legislation and in many cases have resisted it.

\* The Southern States here included are Virginia, North Carolina, South Carolina, Georgia, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, and Texas. Arkansas included with all other States in 1908. Twelfth Census, Manufacturers, 1900, Part III, p. 49; also Census Bulletin No. 74, p. 51, and Census Bulletin No. 97, p. 12. These figures include cotton small wares in 1880 and 1890. They also overstate the growth of the industry between 1905 and 1908, as the figures for 1905 include spindles in cotton mills only and those for 1908 all cotton spindles.